



DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
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BUMEDNOTE 6440
BUMED-22
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IN REPLY REFER TO

BUMED NOTICE 6440

From: Chief, Bureau of Medicine and Surgery
To: Holders of the Manual of the Medical Department

Subj: CHANGE TO MANUAL OF THE MEDICAL DEPARTMENT, CHAPTER 15,
ARTICLE 15-71A, LANDING CRAFT AIR CUSHION (LCAC) CREW
MEDICAL STANDARDS

Ref: (a) MANMED Chapter 15, Article 15-71A

Encl: (1) Replacement page 15-59 and revised pages 15-60 through
15-64d

1. Purpose. To update LCAC Crew Medical Standards.
2. Action. Remove pages 15-59 through 15-64 and replace with enclosure (1). Note that article 15-71B is not a revision, but is included to provide consistency and flow of the existing chapter.
3. Cancellation Contingency. Retain until incorporated into reference (a).


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Available at:
<http://navymedicine.med.navy.mil/instructions/external/external.htm>

disqualification. Waivers will be considered on an individual basis per section V.

(3) Those personnel with minor psychiatric disorders such as acute situational stress reactions must be evaluated by the local group or squadron medical officer in conjunction with a formal psychiatric evaluation when necessary. Those cases which resolve completely, quickly, and without significant psychotherapy can be found fit for nuclear field duty by the responsible medical officer, if deemed appropriate. Those cases in which confusion exists, require review by the TYCOM medical officer for fleet personnel, or MED-21 for shore based personnel. Any consideration for return to duty in these cases must address the issue of whether the service member, in the opinion of the medical officer and the member's commanding officer, can successfully return to the specific stresses and environment of nuclear field duty.

(4) Personnel entering the Nuclear Weapons Program must also meet the requirements for the Personnel Reliability Program, OPNAVINST 5510.162 series.

(d) Migraine Headaches. History of migraine headaches that are recurrent, incapacitating, or require the chronic use of medications for control.

aming physician. The objective is to elicit evidence of tendencies which militate against assignment to these critical duties. Among these are below average intelligence, lack of motivation, unhealthy motivation, history of personal ineffectiveness, difficulties in interpersonal relations, a history of irrational behavior or irresponsibility, lack of adaptability, or documented personality disorders.

(1) Any examinee diagnosed by a psychiatrist or clinical psychologist as suffering from depression, psychosis, manic-depression, paranoia, severe neurosis, severe borderline personality, or schizophrenia will be recommended for disqualification at the time of initial diagnosis.

(2) Those personnel with minor psychiatric disorders such as acute situational stress reactions must be evaluated by the local medical officer in conjunction with a formal psychiatric evaluation when necessary. Those cases which resolve completely, quickly, and without significant psychotherapy can be found fit for continued duty. Those cases in which confusion exists, require review by the TYCOM medical officer for fleet personnel, or MED-21 for shore based personnel. It must be stressed that any consideration for return to duty in these cases must address the issue of whether the service member, in the opinion of the medical officer and the member's commanding officer, can successfully return to the specific stresses and environment of surface rescue swimmer duty.

(3) Special Requirements

(a) Surface designated rescue swimmer school training program instructors (RSSTPI), surface rescue swimmers, candidate and designated, will have their physical examination conducted by any privileged provider under the guidance and periodicity provided in section I.

(b) Naval Aviation Water Survival Training Program instructor (NAWSTPI) and aviation designated (RSSTPI) will have their physical examinations performed by a FS or AMO, and will be examined following article 15-62(2)(g).

(c) Waiver request will be forwarded to BUMED (MED-21) following section V.

15-71

**Naval Aviation
Water Survival
and Rescue
Swimmer School
Training Programs**

(1) **Purpose.** To ensure all personnel assigned duties as students, instructors, or designated rescue swimmers are physically qualified for such assignment.

(2) **Additional Standards.** Standards in section III apply with the following modifications as cause for rejection:

(a) Vision

(1) **Surface Rescue Swimmer Candidates.** Uncorrected vision, near and distant, worse than 20/100 in either eye. Must correct to 20/20 in each eye.

(2) **Designated Surface Rescue Swimmer.** Uncorrected vision, near and distant, worse than 20/200 in either eye. Must correct to 20/20 in each eye.

(3) **Naval Aviation Water Survival Training Program.** Instructor (NAWSTPI) An uncorrected vision is acceptable but must correct to 20/20 in the better eye and 20/40 in the worse eye.

(b) **Psychiatric.** Because of the rigors of the high risk training and duties they will be performing, the psychological fitness of applicants must be carefully appraised by the ex-



15-71A

**Landing Craft
Air Cushion
(LCAC) Crew
Medical Standards**

(1) **Purpose.** To select for LCAC crew duty only the most physically and mentally qualified personnel and to exclude those who may become unfit because of pre-existing physical or mental defect. Certain pre-existing disease states and physical conditions that may develop are incompatible with the simultaneous goals of operational safety, mission accomplishment and individual health. LCAC physical standards were established and are maintained to fulfill these goals.

(2) **Personnel Affected.** All applicants and designated personnel assigned to duty as crew members aboard any U.S. Navy air cushion vehicle must conform to the physical standards in this article. Designated LCAC personnel are considered physically qualified (PQ) if they meet applicant medical standards, and demonstrate an ability to tolerate the stress and demands of operational training and deployment. LCAC crew personnel are divided into three classes:

(a) **Class I.** Crew personnel engaged in the actual control of the LCAC. These include the Craftmaster and Engineer, the student Craftmaster, and the student Engineer.

(b) **Class IA.** Crew personnel engaged in navigation of the LCAC, but not responsible for actual control of the craft. These include the Navigator and the student Navigator.

(c) **Class II.** Crew personnel not engaged in the actual control of the LCAC. These include the Loadmaster and Deck Mechanic, the student Loadmaster, and the student Deck Mechanic.

(3) **Purpose of Examination.** The LCAC physical examination is conducted to determine whether an individual is physically qualified to engage in designated LCAC duties. Upon completion of a thorough evaluation, candidates will be designated either:

- (a) Physically Qualified (PQ).
- (b) Not Physically Qualified (NPQ).
- (c) NPQ but Waiver Recommended.

(4) **Scope of Examination.** The scope of the physical examination will be adequate to effectively determine if the individual meets the appropriate medical standards. A complete physical examination shall include, as a minimum, a medical history legibly recorded on an SF-93, and a physical examination legibly recorded on an SF-88. All abnormal responses on the SF-93 shall be commented on by the examining physician and a determination shall be made and recorded regarding whether the condition is considered disqualifying (CD) or not considered disqualifying (NCD). In addition, the following statement shall be added to the SF-93: "Have you ever been diagnosed with, or received treatment for, alcohol abuse or dependency?" Any positive answer shall be evaluated and documented.

(a) LCAC crew applicants and designated personnel must meet the standards in article 15-71A(6).

(b) Conditions listed as disqualifying may be waived on an individual basis following article 15-71A(5) and (6). However, additional medical specialty evaluations will be required to confirm no functional impairment is present or likely to occur following article 15-71A(8).

(5) **Examination Requirements**

(a) **All Class I (Craftmaster, Engineer) and Class IA (Navigator) applicants** will undergo an initial applicant physical examination that includes completion of an SF-88 and SF-93 before acceptance into phase I of the LCAC training program. In addition to an applicant physical examination, all Class I applicants require psychomotor testing consistent with standards established by Naval Operational Medicine Institute (NAVOPMEDINST) (Code 341), Operational Psychology Division.

(b) **Class II (Loadmaster, Deck Mechanic) applicants** must meet current medical standards for transfer and surface fleet duty following guidelines in the Enlisted Transfer Manual and article 15-71A(8)(b) and (c) (as indicated).

(c) **Designated LCAC Personnel.** The extent of the examination is determined by the type of duty to be performed, age, designation status, and any disqualifying medical conditions. If a crew member fails to meet applicant standards and is found NPQ, yet still wishes to perform LCAC duties, a waiver may be requested for each NPQ medical condition from the Commander, Navy Personnel Command (NPC-409). In all such cases, the Surface Warfare Medicine Institute (SWMI) shall be a via addressee on the waiver request. Information about the medical condition or defect must be of such detail that reviewing officials should be able to make an informed assessment of the request itself, and also be able to place the request in

the context of the duties to be performed. Authorization to request a waiver resides with the crew member, their commanding officer, or the examining or responsible medical provider. All waiver requests shall be either initiated or endorsed by the applicant's commanding officer.

(d) **Temporary NPQ Medical Conditions.** For any temporary medical condition that precludes the LCAC crew member from the full performance of their LCAC duties, the following procedures shall be followed:

(1) For medical conditions less than 60 days duration, a complete physical examination is not required, but an SF-88 (Rev. 10-94) should be submitted that details the medical condition and all pertinent clinical information. Ensure, as a minimum, blocks 1-16 and 42-46 are complete.

(2) For medical conditions that last between 60 days and 6 months or require a Limited Duty Medical Board, submit a complete "Fit For Full Duty" physical evaluation.

(e) **All changes in the status of Class 1 and 1A LCAC crew members** shall be immediately entered into the Special Duty Medical Abstract (NAVMED 6150/2).

(6) LCAC Crew Applicant Medical Standards

(a) The presence of any of the following will be considered disqualifying for all LCAC duties:

(1) Ears, Nose, and Throat

(a) Seasonal aero-allergic disease of such severity to prevent normal daily activity (frequent bouts of sinus infection, nasal obstruction, ocular disease, etc.) not controlled with oral or nasal medication.

(b) Recurrent attacks of vertigo or Menière's syndrome or labyrinthine disorders of sufficient severity to interfere with satisfactory performance of duties uncontrolled with medication.

(c) Chronic or recurrent motion sickness uncontrolled with medication.

(d) Sleep apnea with cognitive impairment or daytime hypersomnolence. Nasal continuous positive airways pressure may be permissible if it does not impact the function or safety of the vessel/unit or crew.

(e) Tracheal or laryngeal stenosis of such a degree to cause respiratory embarrassment on moderate exertion.

(f) Unaided hearing loss which adversely affects safe and effective performance of duty in the Surface Fleet/LCAC environment.

(2) Eyes

(a) Any ophthalmologic disorder that causes, or may progress to, significantly degraded visual acuity beyond that allowed in Section III of this chapter.

(b) Any disorder which results in the loss of depth perception or diminished color vision.

(c) Night blindness of such a degree that precludes unassisted night travel.

(d) Glaucoma, with optic disk changes, not amenable to treatment.

(e) Refractive corneal surgery. Photo-refractive keratectomy and laser in situ keratomileusis are permitted for the surface warfare community. Radial keratotomy is disqualifying, but may be waived. Intra-corneal ring implants are not approved.

(3) Lungs and Chest Wall

(a) Bronchial asthma (diagnosed as moderate or severe persistent).

(b) Chronic or recurrent bronchitis unresponsive to conventional therapy, requires repeated medical care.

(c) Chronic obstructive pulmonary disease, symptomatic with productive cough, history of recurrent pneumonia, and/or dyspnea with mild exertion.

(d) Active Tuberculosis (see BUMED-INST 6224.8).

(e) Respiratory compromise as a result of hypersensitivity reaction to foods, e.g., peanuts, shell fish.

(f) Conditions of the lung or chest wall resulting in more than a moderate amount of restriction to respiratory excursion with weakness and fatigability on slight exertion.

(g) Recurrent spontaneous pneumothorax.

(4) Cardiovascular

(a) Arteriosclerotic heart disease associated with congestive heart failure, repeated anginal attacks, or evidence of myocardial infarction.

(b) Pericarditis, chronic or recurrent.

(c) Cardiac arrhythmias when symptomatic enough to interfere with the successful performance of duty, or adversely impact the member's safety (e.g., chronic atrial fibrillation, significant chronic ventricular dysrhythmias).

(d) 2nd or 3rd degree heart block.

(e) Near or recurrent syncope of cardiac origin.

(f) Hypertrophic cardiomyopathy.

(g) Any cardiac condition (myocarditis) producing myocardial damage to the degree that there is fatigue, palpitations, and dyspnea with ordinary physical activity.

(h) Cardiac surgery (adult) if 6-8 months after surgery, EF is < 40 percent, CHF exists, or there is significant inducible ischemia.

(i) Any chronic cardiovascular drug therapy which would interfere with the performance of duty and/or is required to prevent a potentially fatal outcome or severely symptomatic event (e.g., anticoagulation).

(j) Intermittent claudication.

(k) Thrombophlebitis, recurrent.

(l) Hypertension with associated changes in brain, heart, kidney or optic fundi (KWB Grade II or greater).

(5) Gastrointestinal System

(a) Any condition which prevents adequate maintenance of member's nutritional status or requires dietary restrictions not reasonably possible in the operational environment.

(b) Active colitis, regional enteritis or irritable bowel syndrome, peptic ulcer disease, duodenal ulcer disease. Condition is considered inactive when member has been asymptomatic on an unrestricted diet without medication during the past 2 years and has no radiographic or endoscopic evidence of active disease.

(c) Recurrent or chronic pancreatitis.

(d) Gastritis not responsive to therapy. Severe, chronic gastritis with repeated symptoms requiring hospitalization and confirmed by gastroscopic examination.

(e) Hepatitis (infectious and/or symptomatic).

(f) Esophageal strictures requiring frequent dilation, hospitalization.

(g) Fecal incontinence.

(h) Cholelithiasis without cholecystectomy.

(6) Endocrine and Metabolic

(a) Any abnormality whose replacement therapy presents significant management problems.

(b) Diabetes type I (IDDM), any history of diabetic ketoacidosis, or two or more hospitalizations within 5 years for complications of Diabetes type II (NIDDM).

(c) Symptomatic hypoglycemia or history of any postprandial symptoms resembling those of postprandial syndrome (e.g., postprandial tachycardia, sweating, fatigue, or a change in mentation after eating).

(d) Gout with frequent (>3/yr) acute exacerbations.

(e) Any disorder requiring daily oral steroids.

(7) Genitourinary System

(a) PAP smear Bethesda Class III or higher.

(b) Dysmenorrhea, endometriosis, menopausal symptoms incapacitating to a degree which necessitates recurrent absences from duty of more than 48 hours uncontrolled by medication.

(c) Menstrual cycle irregularities (menorrhagia, metrorrhagia, polymenorrhea) incapacitating to a degree which necessitates recurrent absences from duty of more than 48 hours uncontrolled by medication.

(d) Urinary incontinence.

(e) Renal lithiasis with a diagnosis of hypercalciuria, structural anomaly, or history of a stone not spontaneously passed. A metabolic workup should be performed if a history is given of a single prior episode of renal calculus with no other complicating factors.

(f) Single kidney if complications with remaining kidney.

(g) Conditions associated in member's history with recurrent renal infections (cystic kidney, hypoplastic kidney, lithiasis, etc.).

(h) Pregnancy is disqualifying for training and deployment based upon environmental exposures and access to adequate health care. Refer to OPNAVINST 6000.1 series for specifics on the commanding officer's and medical officer's responsibilities and requirements.

(8) *Extremities*

(a) Condition which results in decreased strength or range of motion of such nature to interfere with the performance of duties or presents a hazard to the member in the operational environment.

(b) Amputation of part or parts of the upper extremity which results in impairment equivalent to the loss of the use of a hand.

(c) Any condition which prevents walking, running, or weight bearing.

(d) Inflammatory conditions involving bones, joints, or muscles that after accepted therapy, prevent the member from performing the preponderance of his/her expected duties in the operational environment.

(e) Malunion or nonunion of fractures which, after appropriate treatment, there remains more than a moderate loss of function due to the deformity.

(f) Chronic knee or other joint pain which, even with appropriate therapy, is incapacitating to a degree which necessitates recurrent absences from duty of more than 48 hours.

(9) *Spine*

(a) Conditions which preclude ready movement in confined spaces, inability to stand or sit for prolonged periods.

(b) Chronic back pain (with or without demonstrable pathology) with either (1) documented neurologic impairment or (2) a history of recurrent inability to perform assigned duties for more than 48 hours two or more times within the past 6 months, and documentation after accepted (Ortho, Rheum, Neuro) therapy that resolution is unlikely.

(c) Scoliosis of greater than 20 degrees, or kyphosis of greater than 40 degrees.

(10) *Skin*

(a) Any chronic skin condition of a degree of nature which requires frequent outpatient treatment or hospitalization, is unresponsive to conventional treatments, and interferes with the satisfactory performance of duty in the operational environment and/or the wearing of the uniform or personal safety equipment.

(b) Scleroderma.

(c) Psoriasis, atopic dermatitis, or eczema, widespread and uncontrolled with medication.

(d) Lymphedema.

(e) Urticaria, chronic.

(f) Hidradenitis suppurative, recurrent, that interferes with the performance of duty.

(g) Known hypersensitivity to occupational agents, e.g. solvents, fluxes, latex, nickel, etc.

(11) *Neurologic*

(a) History of headaches or facial pain if frequently recurring, or disabling, or associated with transient neurologic impairments that are uncontrolled on oral medications or require repeated hospitalization.

(b) History of unexplained or recurrent syncope.

(c) History of convulsive seizures of any type except for a single simple seizure associated with a febrile illness before age 5.

(d) Encephalitis, or any other disease resulting in neurological sequelae or an abnormal neurologic examination.

(e) Post-traumatic syndrome defined as headaches, dizziness, memory or concentration difficulties, sleep disturbance, behavior alterations, or personality changes after a head injury.

(f) Narcolepsy.

(g) Flaccid or spastic paralysis, or muscular atrophy producing loss of function that precludes satisfactory performance of duty or impacts the safety of the member in the operational environment.

(12) *Psychiatric.* Because of the nature of the duties and responsibilities of each LCAC crew member, the psychological suitability of members must be carefully appraised. The objective is to elicit evidence of tendencies which might prevent satisfactory adjustment to surface fleet life.

(a) Any history of an Axis I diagnosis as defined by the current Diagnostic and Statistical Manual of Mental Disorders (DSM) is disqualifying (no waivers). Adjustment disorders are NPQ only during the active phase.

(b) Axis II Personality Disorders, including mood, anxiety, and somatoform disorders, and prominent maladaptive personality traits are disqualifying. They are waiverable if the individual has been symptom free without treatment for 1 year.

(c) Substance-related disorders (alcohol or controlled substance) are disqualifying. Upon satisfactory completion of an accepted substance abuse program and total compliance with an after-care program,

a waiver may be considered when 1 year has elapsed post-treatment. Continuation of a waiver would be contingent upon continued compliance with the after-care program, including total abstinence.

(d) Claustrophobia, questionable judgment or affect, poor coping skills, or any other evidence for poor adaptation to LCAC duty conditions, is considered disqualifying and requires a psychiatric consultation for waiver consideration.

(e) The taking of psychotropic medications of low toxicity (e.g., Prozac, Zoloft, Paxil) is not reason in itself for disqualification from service in the surface fleet force. Low-toxicity prescription psychotropics are acceptable as long as the underlying condition will not become life or function threatening, pose a risk for dangerous or disruptive behavior, nor create a duty-limiting, medical evacuation, early return situation should medication use cease or the medication become ineffective.

(f) It must be stressed that any consideration for return to duty in psychiatric cases must address the issue of whether the service member, in the opinion of the medical officer (unit or type command) and the member's commanding officer, can successfully return to the specific stresses and environment of LCAC duty.

(13) **Systemic Diseases and Miscellaneous Conditions.** Any acute or chronic condition that affects the body as a whole and interferes with the successful performance of duty, adversely impacts the member's safety, or presents a hazard to the member's shipmates, or the mission.

(a) Spondyloarthropathy.

(b) Sarcoidosis (progressive, not responsive to therapy or with severe or multiple organ involvement).

(c) Cancer treatment within 5 years (except testicular or basal cell).

(d) Anemia, symptomatic and not responsive to conventional treatments.

(e) Leukopenia, when complicated by recurrent infections.

(f) Atopic (Allergic) Disorders. A documented episode of a life-threatening generalized reaction (anaphylaxis) to stinging insects (unless member has completed immunotherapy and is Radioallergosorbent technique (RAST) or skin test negative) or a documented moderate to severe reaction to common foods, spices, or additives.

(g) Any defect in the bony substance of the skull interfering with the proper fit and wearing of military headgear.

(h) History of heat pyrexia (heat stroke) or a documented predisposition to this condition, including inherited or acquired disorders of sweat mechanism, or any history of malignant hyperthermia.

(14) **Special Studies.** In addition to the special studies required in article 15-9, also perform a PPD on initial assignment and when clinically indicated. Medical examinations will be conducted per article 15-11.

(b) **Procedures and Standards**

(1) **General Fitness and Medications.** A notation will be recorded on an SF-88 and an SF-93 for individuals receiving any medications on a regular basis or within 24 hours of the LCAC examination. In general, individuals requiring medication or whose general fitness might affect their LCAC duty proficiency shall be found NPQ for duty aboard an LCAC. Record status in box 44 of the SF-88 (Rev. 10-94) (e.g., "NPQ-LCAC Duty").

(2) **Height and Weight.** All candidates will meet enlistment height/weight and body fat percentage requirements per OPNAVINST 6110.1 series.

(3) **Cardiovascular System.** History or presence of cardiac arrhythmia or injury, heart murmur, or other evidence of cardiac abnormality is cause for medical referral and cardiac evaluation for clearance for LCAC duty.

(4) **Blood Pressure and Pulse Rate**

(a) **Blood Pressure.** Blood pressure is determined twice. First after the examinee has been supine for at least 5 minutes and second after standing motionless for 3 minutes. A persistent systolic blood pressure of greater than 139mm is disqualifying, and a persistent diastolic blood pressure of greater than 89 mm is disqualifying, as is orthostatic or symptomatic hypertension.

(b) **Pulse Rate.** Shall be determined in conjunction with the blood pressure. An EKG must be obtained in the presence of a relevant history of arrhythmia, or pulse rate of less than 45 or greater than 100. Resting and standing pulse rates shall not persistently exceed 100.

(5) **Electrocardiogram (EKG).** All applicants must have a 12-lead EKG and CXR performed with their NAVOPMEDINST physical examination, and as applicable thereafter. The baseline EKG must be marked Not To Be Removed From Health Record and must be retained in the health record until that record is permanently

closed. Each baseline EKG, or copy thereof, shall bear adequate identification including full name, grade or rate, social security number, designator, facility of origin and a legible interpretation by a medical officer.

(6) Teeth

(a) Personnel in dental class 1 and class 2 are qualified.

(b) If a candidate is dental class 3 due only to periodontal status not requiring surgery, the candidate will be accepted as qualified after obtaining a dental waiver.

(7) Articulation. Candidates must speak clearly and distinctly and without an impediment of speech that may interfere with radio communications. Use the reading aloud test below for this determination.

(a) **Reading Aloud Test.** The "Banana Oil" test is required for all applicants and other aviation personnel as clinically indicated.

(b) **Text.** You wished to know about my grandfather. Well, he is nearly 93 years old; he dresses himself in an ancient black frock-coat, usually minus several buttons; yet he still thinks as swiftly as ever. A long, flowing beard clings to his chin, giving those who observe him a pronounced feeling of the utmost respect. When he speaks, his voice is just a bit cracked and quivers a trifle. Twice each day he plays skillfully and with zest upon our small organ. Except in winter when the ooze of snow or ice is present, he slowly takes a short walk in the open air each day. We have often urged him to walk more and smoke less, but he always answers "Banana Oil." Grandfather likes to be modern in his language.

(8) Mental Health Review. A mental health review covering the psychiatric items in article 15-71A(6)(a)(12), and any other pertinent personal history items, must be conducted by the examining medical officer. A psychiatric referral is not required to obtain this history. This general mental health review will determine the applicant's basic stability, motivation, and capacity to maintain acceptable performance under the special stresses encountered during LCAC operations.

(9) Neurological Examination. A careful and complete neurological examination must be made. Any neurological defect which may interfere with LCAC duty requires a neurology consultation.

(10) Distant Visual Acuity. Determine visual acuity by using a 20 foot eye lane with standard Goodlite letters and lighting. The Armed Forces Vision Tester (AFVT) is an acceptable alternative. If corrective lenses are necessary for LCAC duty, the LCAC crew personnel

must be issued the approved lens-hardened eye wear for proper interface with operational headgear (i.e., aviation frames/gas mask). A spare pair of corrective lenses must be carried at all times during operations.

(a) **For Class I and IA personnel,** minimum distant visual acuity shall be no less than 20/100 uncorrected each eye and correctable to 20/20 each eye.

(b) **For Class II personnel,** there are no uncorrected limits, but shall correct following the standards in article 15-40(1)(j). If correction is necessary for LCAC personnel, corrective lenses shall be worn at all times during LCAC operations.

(11) Near Visual Acuity. Either the AFVT or the near vision testing card shall be used to test near vision. A minimum near visual acuity of 20/200 in each eye, correctable to 20/20, is acceptable. For Class II there are no uncorrected limits. If correction is necessary, corrective lenses shall be worn at all times during LCAC operations.

(12) Refraction. Refraction of the eyes is required on the initial screening examination if the applicant requires corrective lenses to meet visual acuity standards.

(a) **For Class I and IA personnel,** acceptable limits are +/- 5.0 diopters in any meridian. The difference in the refractive errors in any meridian of the two eyes (anisometropia) may not exceed 3.5 diopters. Cylinder correction may not exceed 3.0 diopters.

(b) **Class II applicants** shall meet accession standards for refraction (article 15-40).

(13) Depth Perception. This test should be performed using a Verhoeff Stereopter or, if unavailable, the AFVT lines A-D for Class I and lines A-C for Class IA and II. Pass-Fail standards per article 15-65 7a(1)(a)4 shall be followed. Normal depth perception (aided or unaided) is required. If visual correction is necessary for normal depth perception, corrective lenses must be worn at all times during LCAC operations.

(14) Oculomotor Balance. The vertical and lateral phorias may be tested with the Phoropter or with the AFVT. Any lateral phoria greater than 10 prism diopters is disqualifying (greater than 6 prism diopters requires an ophthalmologic evaluation). Any vertical phoria greater than 1.5 prism diopters is disqualifying and requires an ophthalmologic consultation. For Class II, no obvious heterotropia or symptomatic heterophoria (NOHOSH) is acceptable.

(15) Inspection of the Eyes. Follow guidelines within article 15-65 7. The examination must include a funduscopy examination. Any pathological condition that might become worse, interfere with the proper wearing of

contact lenses or functioning of the eyes under fatigue, night vision goggle use or LCAC operating conditions shall disqualify all LCAC crew candidates.

(16) **Color Vision.** All LCAC crew personnel assigned duties involving the actual control of the craft or to navigational observation duties must pass the Farnsworth Lantern Test (FALANT), or pass 12/14 Pseudo Isochromatic Plates (PIP) if the FALANT is unavailable.

(17) **Night Vision.** Any indication or history of night blindness disqualifies the applicant due to the importance of night vision and night vision supplementation to LCAC operations.

(18) **Field of Vision.** Fields should be full to simple confrontation. See article 15-40. Any visual field defect should receive ophthalmologic referral to pursue underlying pathology.

(19) **Intraocular Tension.** Schiottz, non-contact (air puff), or applanation tonometry must be used to measure intraocular tension. Tonometric readings consistently above 22 mm Hg Schiottz in either eye, or a difference of 5 mm Hg Schiottz between the two eyes, should receive an ophthalmologic referral for further evaluation. This condition is disqualifying until an ophthalmologic evaluation has been completed.

(20) **Ears.** Follow article 15-39(1). General enlistment standards in article 15-39 are accepted as applicant standards, with the exception of audiometric standards. Any disqualifying acute or chronic ear disease or disorder by those standards disqualifies the applicant.

(21) **Hearing Tests.** An audiogram is required for all LCAC applicants. It will be performed within 90 days of reporting to the assigned assault craft unit, and annually thereafter. Audiometric loss in excess of the following limits for each frequency disqualifies the LCAC applicant. Designated crew members already assigned to a craft shall be NPQ with waiver consideration.

MAXIMUM HEARING LOSS (ANSI 1969)		
Frequency (Hz)	Better Ear (dB)	Worse Ear (dB)
500	35	35
1000	30	50
2000	30	50

(22) **Equilibrium.** Use the self-balancing test (SBT). The examinee stands erect, without shoes, with heels and large toes touching. The examinee then flexes one knee to a right angle, closes the eyes, then attempts to maintain this position for 15 seconds. The results of the

test are recorded as “Steady,” “Fairly Steady,” “Unsteady,” or “Failed.” Inability to pass this test for satisfactory equilibrium disqualifies the candidate.

(c) *For information on waivers for medical standards*, see article 15-71A(8).

(7) Development of Mandatory Requirements for LCAC Crew Members Medically Suspended From LCAC Duty

(a) If an LCAC crew member is found to be NPQ, or is suspended from duty for greater than 60 days for any medical condition, a “fitness to continue” physical examination (SF-93 and SF-88) shall be completed before resuming duties. That examination shall then be submitted to the Surface Warfare Medicine Institute (SWMI) for waiver consideration or recommendation for a medical board.

(b) After 30 days of limited or medically restricted duty the crew member must be evaluated by a medical officer to determine whether the individual is NPQ for LCAC duty, should be recommended for a medical waiver (see article 15-71A(8)), or should undergo a medical board.

(8) Medical Waiver Requests

(a) **Class I and IA LCAC crew applicants** and designated personnel. Forward medical waiver requests for all Class I crew members and applicants to the Commander, Navy Personnel Command (NPC-409C) via SWMI. A copy of all approved waivers must be sent from NPC-409C to SWMI for archival purposes.

(b) **Class II LCAC crew applicants.** Forward medical waiver requests for all Class II crew applicants to NPC-409C via the type command medical officer. A copy of all Class II approved waivers must be sent from NPC-409C to SWMI for archival purposes.

(c) **Medically-suspended designated LCAC crew members.** As noted in article 15-71A(8)(a) and (b), forward medical waiver requests for LCAC crew personnel who are medically suspended to the type commander medical officer via the chain of command. The type commander medical officer must evaluate and approve medical waiver requests for designated LCAC crew personnel (as opposed to LCAC crew applicants). A copy of the type commander medical officer’s final decision concerning the waiver request will be forwarded to SWMI for archival purposes.

(9) Physical Examinations

(a) **All LCAC Class I and Class IA crew personnel** will undergo a complete physical examination (SF-88 and SF-93) within 30 days of their birthday at ages 21, 24, 27, 30, 33, 36, 39, and annually thereafter.

(b) *All LCAC Class II personnel* will undergo a complete physical examination within 30 days of their birthday every 5 years.

(c) *Reporting Attrition of LCAC Crew Personnel.* Development of an accurate personnel database is critical to the evolution of the LCAC crew selection and evaluation process, and of particular importance is information on the attrition of LCAC crew personnel. Therefore, report details on all such attrition, medical and nonmedical, to SWMI for analysis and archival purposes.

(d) *Medications (general guidelines).* Any use of a medication or combination of medications that may cause drowsiness, a slowing of reflexes, a sensorium effect, vestibular or reticular activating systems impingement, or any other alteration in performance that may impact crew coordination, crew safety or the safe operation of the LCAC, will be cause to exclude the crew member from such duties for the duration of therapy. Questions concerning specific medications can be directed to SWMI for analysis and arbitration.

15-71B

Explosives Handlers and Explosives Vehicle Operators

(1) *Purpose.* Medical examinations of explosive handlers and hazardous vehicle operators are conducted to ensure civilian employees and active duty personnel who handle explosives or operate vehicles or machinery which transport explosive or other hazardous material are physically qualified. Members who are qualified under this section meet the physical qualification requirements of the Federal Highway Administration, Department of Transportation, and CFR Part 391.

(2) *Responsibilities.* Individuals assigned to duties as vehicle operators that transport hazardous materials are responsible to report to their supervisor or Medical Department personnel any physical condition which may pose a health or safety hazard to self, coworkers, or degrades the safety of the working environment. Supervisors of personnel assigned as explosives handlers and hazardous material drivers are responsible to direct employees thought to have a physical impairment which may pose a health or safety hazard, to the appropriate medical department for examination.

(3) *Additional Standards.* Active duty members must meet the standards of MANMED, chapter 15, section III with particular emphasis on the systems below. Civilian personnel must meet the general standards for employment as provided by the Office of Personnel Management and the standards listed below. Navy Explosive Ordinance Disposal personnel must also meet the requirements of article 15-66. Civilian contract carriers need only be qualified per CFR Part 391. In addition to the standards of Section III of this chapter, the following are causes for rejection:

(a) *Ears.* Hearing loss in either ear averaging more than 40 dB at 500, 1000, and 2000 Hz (ANSI) with or without hearing aid.

(b) *Eyes*

(1) *Vision*

(a) Distant visual acuity that does not correct to at least 20/40 in each eye.

(b) For active duty military, visual fields outside the minimums listed in article 15-40(1)(i). For civilian personnel, field of vision of at least 70 degrees in the horizontal meridian in each eye.

(2) *Color Perception.* For active duty military, inability to pass the FALANT. If FALANT is not available at the examining facility, the Pseudoisochromatic Plate (PIP) test may be used as a screening examination. Failure of the PIP requires a FALANT be conducted and recorded. A member may be considered qualified if they fail the FALANT, but can satisfactorily demonstrate the ability to distinguish the colors of traffic signals and devices showing standard red, green, and amber. For civilian employees, FALANT is the recommended form of testing, but the member must be able to distinguish the colors of traffic signals and devices showing standard red, green, and amber.

(c) *Lungs and Chest Wall.* Must meet the standards of MANMED, article 15-41.

(d) *Heart and Vascular System*

(1) Medical history or clinical diagnosis of: myocardial infarction, angina pectoris, coronary insufficiency, thrombosis or any other variety of cardiovascular disease known to be accompanied by syncope, dyspnea, collapse, or congestive heart failure.

(2) High blood pressure not adequately controlled by diet or medication.

(e) *Musculoskeletal***(1) *Extremities***

(a) Loss of foot, leg, hand, or arm.

(b) Impairment of hand or finger which interferes with grasping.

(c) Impairment of foot, leg, hand, arm, or any other limb which interferes with the ability to perform assigned duties.

(2) ***Musculoskeletal System.*** Any medical history or clinical diagnosis of: rheumatic, arthritic, orthopedic, muscular, or neuromuscular disease or impairment which interferes with the safe performance of assigned duties.

(f) ***Neurologic.*** Medical history or clinical diagnosis of: epilepsy, recurrent syncope, or any condition which is likely to cause loss of, or altered states of consciousness.

(g) *Psychiatric*

(1) Any mental, nervous, organic, or functional disease or psychiatric disorder likely to interfere with the safe performance of assigned duties.

(2) Diagnosis of alcoholism. Recovering alcoholics with a minimum of 1 year of sobriety are NOT considered disqualified.

(3) Use of a Schedule I drug, amphetamine, narcotic, or any other habit-forming drug or substance (excluding tobacco). Use is not disqualifying if the substance or drug is prescribed by a licensed medical practitioner who has advised the member that the prescribed drug will adversely affect the member's ability to safely perform assigned duties.

(h) ***Special Studies.*** The following special studies are required:

(1) Hematocrit.

(2) Fasting blood glucose.

(3) Lipid profile and triglycerides (required for active duty, only if clinically indicated for civilian personnel).

(4) Urine, routine analysis.

(5) Eye examination.

(6) Tonometry if over age 40 (required for active duty, only if clinically indicated for civilian personnel).

(7) Audiogram.

(8) Electrocardiogram.

(i) *Periodicity*

(1) Active duty military personnel who are explosive handlers or hazardous material vehicle operators will have a medical examination per the periodicity in article 15-11.

(2) Civilian employees who are explosives handlers or hazardous material vehicle operators will have a medical examination every 2 years.

(3) After age 60, all personnel will have annual medical examinations.